

Claims

1. A method for producing a series of stereoscopic pairs of images that can be displayed one after the other as a stereoscopic movie from a sequence of consecutive images of a scene, wherein said sequence of images is obtained by standard techniques using standard equipment and wherein a first image of a pair of images comprising the right and left images of each frame of said stereoscopic series of images is selected from the original sequence of images, and its stereo partner is either selected from said original sequence and/or is generated by transforming images selected from said original sequence of images.
2. A method according to claim 1, wherein the sequence of images is chosen from frames taken with a video camera or a digital still camera.
3. A method according to claim 1, wherein the sequence of images are analog images that are scanned to produce the digitized images.
4. A method according to claim 3, wherein the analog images can be images taken with a still or movie camera.
5. A method according to claim 1, comprising the following steps:

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- a) processing the original sequence of consecutive images of a scene by use of a device that is capable of reading the individual images, digitizing the images if necessary, and storing the images in a memory unit;
- b) selecting a subset of images of interest;
- c) computing the collection of affine transformations between the images in the subset;
- d) selecting one image of the sequence of the subset of images of a scene that will be one member of the first stereo pair of the sequence;
- e) searching for a suitable stereo partner for said selected image by determining the cascaded affine transformation to each of the successive images starting with the neighboring image to said selected image and applying the parallax criterion until a suitable stereo partner, i.e. an image that can be transformed into the second member of said stereo pair is found;
- f) calculating a planar transformation by using the members of said stereo pair and the cascaded affine transformation between the members of said pair;
- g) applying said planar transformation to said selected image;
- h) storing said stereo pair in the memory unit; and
- i) repeating steps c) through h) for the next and each of the remaining images of said selected subset.

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6. A method according to claim 4, wherein said parallax criterion is expressed as a number of pixels of horizontal translational motion.
7. A method according to claim 4, wherein said searching is carried out amongst said neighboring images on both sides of said selected image.
8. A method according to claim 4, wherein said searching is limited to a maximum number of images on either side of said selected image.
9. A series of stereoscopic pairs of images produced from a sequence of consecutive images of a scene, wherein said sequence of images is obtained by standard techniques using standard equipment and wherein a first image of a pair of images comprising the right and left images of each frame of said stereoscopic series of images is selected from the original sequence of images, and its stereo partner is either selected from said original sequence and/or is generated by transforming images selected from said original sequence of images.
10. A series of stereoscopic pairs of images produced from a sequence of consecutive images of a scene, wherein said sequence of images is obtained by use of the method of claims 1 to 8.

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11. A stereoscopic movie produced from the series of stereoscopic pairs of images of claims 9 or 10.

12. A stereoscopic movie according to claim 11 and additionally accompanied by a sound track, wherein said sound track is essentially identical to the sound track recorded with the sequence of consecutive images from which said stereoscopic movie is produced.